shells for the height-length ratios were measured with comparative accuracy with a micrometer. The graph is plotted against the frequency in per cent of the total number of specimens (132). The greater number of specimens indicate relatively higher shells, with the highest number having a ratio of 0.83. The slight variation in outline, which might not be shown by the dimensions, can not be shown well by a graph. However this was observed to have a corresponding distribution and would doubtless fit the same sort of curve.

For the second graph the angle of the umbone was measured by a protractor. Its measurement may be illustrated as follows: Suppose an angle be drawn, the apex touching the umbone, with the legs tangential to the most anterior and posterior extremities of the shell. Errors due to equipment or personal judgment do not exceed four degrees, and since they are not constant they may be ignored. The percentages represented in the graph reach the highest at 91 and 95.

These two graphs show that there is a great variation in the shape of the shell and in the position of the umbones; therefore it is suggested that the species *C. eufalensis* be combined with the species *C. cowlitzensis,* and that the Corbiculas from the type locality henceforth be called *C. cowlitzensis.* If these species were ever to be distinguished again, it would have to be under some characteristic other than that of shape and position of the umbone.

THREE NEW SECTIONS AND RECTIFICATIONS OF SOME SPECIFIC NAMES IN THE PECTINIDAE

BY LEO GEORGE HERTLEIN

During studies of the genera and species of the recent and fossil Pectinidae, it was noticed that several species were in need of rectification of their nomenclature. Three new sections are also proposed.

Swiftopecten Hertlein

Swiftopecten Hertlein, Proc. Calif. Acad. Sci., Ser. 4, Vol. 21, no. 25, 1935, p. 319. Type: *Pecten swiftii* Bernardi, Journ. de

Conchyl., Vol. 7, 1858, p. 90, pl. 1, fig. 1; pl. 2, fig. 1. "Hab. la baie Nicholas, dans la Manche de Tartarie."

This section was proposed to include the well known *Pecten swiftii* group, Pliocene to Recent in Japan, and *P. parmeleei* and related forms in the Pliocene of California.

If Matsumoto[1] is correct in supposing that *P. natoriensis* is the ancestral form of *P. cosibensis* Yokoyama, then this group is apparently not closely related to the *P. pes-felis* group which occurs from Miocene to Recent in the Mediterranean region, and which belongs to the section *Manupecten* Monterosato.[2] That sectional name appears to antedate *Felipes* (Locard) Carus[3] by a few months.

Mr. Thomas Cowles, formerly librarian of the California Academy of Sciences, has kindly taken the trouble to write Mr. A. C. Townsend, librarian of the British Museum, regarding the date of issue of this work. Mr. Townsend in a letter dated September 10, 1932, stated . . . "I find that the date on the original wrapper, which we have preserved, of Vol. 2, Pars 1, Brachiostoma. Mollusca, pp. 1–272, is 1889 [this pagination is written in in manuscript on the wrapper]. A stamp at the top of the wrapper states that the part was received in the Library of this Museum on the 19th December, 1880, so it was probably issued either at the end of November or early in December." "*Pecten pes felis* Lam." occurs in the faunal list followed by parentheses containing the names of species which were apparently considered to be synonyms. These were "(Ostrea pes-felis L., P. elongatus Born, O. corallina Poli, P. Bornii Payr.)," "(Var. alipus De Greg., Sicilia)."—Dall, Trans. Wagner Free Inst. Sci., Vol. 3, pt. 4, 1898, p. 696–697. *Felipes* cited "with *P. pesfelis* L. as the type."

Pecten swifti has been referred to the section *Pallium* by some authors, but it has been pointed out by Cox and others that

[1] Sci. Rept. Tohoku Imp. Univ. Sendai, Japan, Ser. 2 (Geol.), Vol. 13, no. 3, 1930, p. 104, pl. 40, figs. 10 and 11.

[2] Journ. de Conchyl., Vol. 29, no. 1, January, 1889, p. 21. Species included in original list: *P. pes-felis, P. radula, P. tigris, P. fulvicostatus.*—Monterosato, Journ. de Conchyl., Vol. 47, no. 3, 1899, p. 190. "Type: *P. pes-felis*, auct."

[3] Prod. Faunae Mediterr., Bd. 2, 1889, p. 71.

Pallium Schumacher with the type *Pecten plica* Linnaeus, can not be used due to the earlier *Pallium* Schröter (Archiv. für Zoologie und Zootomie, Bd. 3, 1802, p. 135). If *Pallium* of Martini is not accepted, then *Decadopecten* Rüppell in Sowerby,[4] can be used for the section which has *Pecten plica* as type.

Anatipopecten, new section

A group somewhat similar in form to *Manupecten* and *Swiftopecten* but which occurs in the Tertiary of eastern North America can be placed in a new section *Anatipopecten,* with *Pecten anatipes* Morton[5] as type.

Dendopecten, new section

Type, *Pecten dendyi* Hutton, Trans. New Zealand Inst., Vol. 34, 1902, p. 196, pl. 8. "In a calcareous sandstone, Chatham Island."—Marwick, Trans. New Zealand Inst., Vol. 58, 1928, p. 458, fig. 29. "Momoe-a-toa."

This section is present in the New Zealand later Tertiary and is known in beds of Miocene or possibly upper Oligocene age. *P. burnetti* Zittel, appears to belong to this group as well as the Recent *P. convexus* Quoy and Gaimard. These forms do not appear to be closely related to the Mediterranean *P. pes-felis* group which belongs to the section *Manupecten* Monterosato. The New Zealand group bears some resemblance to *Peplum* Bucquoy, Dautzenberg and Dollfuss[6] and to *Flexopecten* Sacco.[7] For convenience the New Zealand group is placed in the separate section *Dendopecten.*

[4] *Decadopecten* Rüppell in G. B. Sowerby, Conch. Manual, 1839, pp. 37, 78, 121, fig. 172. Type by monotypy, *Pecten plica* Linnaeus. This was spelled *Decatopecten* in the original, but in later editions of Sowerby's manual it was spelled *Decadopecten.* Sherborn indicated that the original spelling was "[*err. typ. pro* Decado-]." *Dentipecten* Rüppell in J. E. Gray (Proc. Zool. Soc. London, 1847, p. 200. Type by monotypy, *Pecten plica* Linnaeus) is an exact synonym of *Decadopecten.*

[5] *Pecten anatipes* Morton, Amer. Jour. Sci., Vol. 23, no. 2, 1833, p. 293, pl. 5, fig. 4. "From the overlying limestone of Claiborne, Alabama."—Cook & Mossom, 20th Ann. Rept Florida Geol. Surv., for 1927–1928 [issued 1929], p. 69, pl. 7, fig. 2. Glendon Limestone, Holmes County, Florida. Oligocene.

[6] Moll. Marine du Rousillon, Vol. 2, 1889, p. 67. "Type: *P. clavatus* Poli." As pointed out by Harris (Bull. Amer. Paleo., Vol. 6 (Bull. 31), 1919, p. 25), *Pecten pulchricostus* Aldrich & Meyer from the Eocene of Mississippi is quite similar to the recent *Pecten clavatus* Poli from the Mediterranean.

[7] Moll. Terz. Piemonte y Liguria, Pt. 24, 1897, p. 39. "(tipo *F. flexuosus* (Poli))."

PETHOPECTEN, new section

Type, *Pecten (Chlamys) Széremensis* Pethö, Foldtany Intézet kiallitasi targyi etc. (expositio millenaris Hungaricae), 1896, no. 55, p. 32.—Pethö, Palaeontographica, Bd. 52, 1906, p. 208, pl. 15, figs. 2, 3, 3a, 3b. Cerevic, Hungary. Senonien of the Peterwardeiner Gebirges.

This group is typified by *P. széremensis* Pethö, which has a very short hinge in proportion to the height and length of the shell, a rather sharp apical angle and a somewhat oblique form. The type has about eight to ten ribs, and on these, a number of projecting scaly spines appear in the earlier stages of the shell. Apparently *P. krenneri* Pethö also belongs to this section.

PECTEN SINOMARINUS, new name

Pecten ambiguus Bavay, Journ. de Conchyl., Vol. 52, no. 3, October, 1904, p. 198, pl. 6, figs. 15 and 16. "mare sinense boreale." Recent. Not *Pecten ambiguus* Münster, in Goldfuss, Petref. Germaniae, Th. 2 (4), 1833, p. 46, Tab. 90, figs. 5a, b. "Findet sich im unteren Oolith bei Gräfenberg im Baireuthischen." [Jurassic]; not p. 64, Tab. 96, figs. 2a, b, c. "bei Bünde." [Oligocene.]

The specific name *ambiguus* was applied to a species of *Pecten* from Jurassic beds, and on another page to an Oligocene species in Germany by Münster whose use of the name is much earlier than that of Bavay. Münster's species is usually classified under the subgenus *Chlamys* and in that case Bavay's use of *ambiguus* is untenable. The name *sinomarinus* is here proposed for the Chinese species. As indicated by Bavay, the species appears to belong to the group which includes *Pecten hirasei* Bavay, *P. singaporinus* Sowerby and *P. tranquebaricus* Gmelin.

(*To be concluded*)

BRYANT WALKER, 1856–1936

We are grieved to announce the death in May after a prolonged illness, of a life-long friend and a frequent contributor to the pages of this journal. A biographic sketch will appear later.—H. A. P. and H. B. B.

JOHN HENRY GATLIFF

In the death of John Henry Gatliff on September 14, 1935, at the age of 87 years, Australia has lost a veteran conchologist, author of numerous papers on Victorian mollusks, and affectionately known in Australia as the "father of Victorian conchology." Many of his papers were published in collaboration with C. J. Gabriel. The Catalogue of Marine Shells of Victoria (Proc. Royal Soc. S. Australia) by Pritchard and Gatliff is a standard work on this fauna. His first paper was published in 1887. When in Melbourne in 1923 the writer had the great pleasure of visiting Mr. Gatliff in his home where, surrounded by books and specimens, he was a most likeable and generous host. He possessed a collection of more than 7000 species. The Victorian shells, which alone could be gone over in two evenings, are remarkable for beauty and perfection of the specimens. He was recently appointed Honorary Conchologist to the Natural Museum, Melbourne. A portrait may be found in the *Victorian Naturalist* for October.—H. A. P.

HERBERT N. LOWE

West Coast conchologists, and all of us who enjoyed his friendship, have suffered a severe loss in the death of Mr. Lowe, June 10th. An account of his life and scientific work will appear later. —H. A. P.

NOTES AND NEWS

EXACT DATES OF THE NAUTILUS.—*Volume* 49 (1) : pp. 1–36, pls. 1, 2, was mailed July 22, 1935; (2) : 37–70, pls. 3, 4, Nov. 8, 1935; (3) : 71–106, pls. 5–7, Jan. 30, 1936; (4) : 107–142 (+vii), pls. 8, 9, May 1, 1936.—H. B. B.